

PRC: CORPORATIONS UNDER CHINESE MILITARY CONTROL – PAI INSIGHTS

Summary:

On 24 June 2020, the Department of Defense (DoD) released a list of 20 Chinese corporations it claims are controlled by or closely related to the People's Liberation Army (PLA). Babel Street analysts conducted additional research into these companies using publicly available information (PAI). The announcement and additional data revealed through this research highlight the need for increased due diligence and supply chain management when working with or selling to Chinese companies assessed to have a "military end use." While some companies on the DoD list are unsurprising, the group represents broad swaths of the People's Republic of China (PRC) economy and demonstrates the Chinese Communist Party's (CCP) attempt to create deep "military-civil fusion."¹ Indeed, it is vital for U.S. and foreign firms to understand the level of PLA and CCP integration into the PRC economy and know that any technology or material sold to PLA-connected companies can easily be used for military or other security purposes. Furthermore, Chinese civilian companies closely affiliated with the Chinese military can provide a unique opportunity for Chinese espionage given the longstanding partnerships some maintain with major Western corporations—including the U.S. and Western defense industrial base.

BLUF:

- DoD identified 20 PRC companies under PLA control across defense, technology, transportation, infrastructure, energy, and communication industries
- PLA and CCP control extends into every major facet of the PRC economy, embodying CCP whole-of-nation approach to national security
- PLA control of companies enables goods and technology to be easily applied to military and security purposes
- Foreign firms must realize the level of CCP/PLA involvement and potential dual use of technology, even when working with seemingly benign industries

Background:

In September 2019, a bipartisan group of U.S. Senators requested DoD investigate PRC companies with direct and indirect operations in the United States that might be controlled or closely tied to the PLA. On 24 June 2020, the Pentagon released a report listing such Chinese corporations. One particular concern of the U.S. Government is preventing the transfer of technology that can have a "military end use." Military end use refers both to direct use (e.g., for parts, components, or subsystems of weapons and other defense articles) and indirect use (e.g., weapon design and development, testing, repair, and maintenance) according to the United States Department of Commerce (DOC) Bureau of Industry and Security's Export Administration Regulation.

¹ <https://www.state.gov/wp-content/uploads/2020/05/What-is-MCF-One-Pager.pdf>

PLA Controlled Companies:

Babel Street's analysis of the companies identified by DoD revealed several interesting details (see Appendix for a complete list of the 20 companies with details on each). Several of the PRC corporations have overt relationships with the PLA, such as China South Industries Group Corporation (CSGC), which is managed by the central government and is described as "the backbone of the national defense technology industry." There are also aviation giants like Aviation Industry Cooperation, China Electronics Technology Group Corporation, and Aero Engine Corporation of China, which produce next-generation stealth fighters and pioneer (through intellectual property theft) PRC jet engine production. Two shipbuilding companies also appear on the list, including the builders of China's first indigenous aircraft carrier. China North Industries Groups Corporation (also known as China Ordnance Industries Group)—producer of battle tanks and a "copycat" version of the Javelin ATGM—was also named by DoD.

Companies involved in satellite development, space launch, and nuclear energy were also included on the DoD list. China Aerospace Science and Technology Corporation (CASC) launched a satellite in early July with an official mission of scientific purposes, but the payload shares much in common with another PRC satellite assessed to have reconnaissance capabilities. Furthermore, CASC operates on a PLA Air Force facility. While no specific links were observed between the other space launch company (China Aerospace Science and Industry Corporation) or the nuclear power companies and PLA in Babel Street's analysis, the inclusion of these companies is rational given the strategic capabilities they represent for the CCP.

Several technology companies also appear on the list. Most notable is Huawei, which worked on several research projects alongside the PLA in the fields of artificial intelligence (AI) and radio communications. While the U.S. Government has long warned of CCP control, the DoD letter goes a step further by suggesting Huawei is a "Communist Chinese military [company]." Such a designation will do little to assuage fears that the PRC's flagship technology company is a trustworthy partner. Similar questions will continue to haunt another Chinese tech giant, Hangzhou Hikvision Digital Technology Co. known for making advanced video surveillance equipment. While Hikvision rejects any association with China's military, even in research and development, its involvement in surveillance technology development and human rights abuses in Xinjiang are well publicized. Additionally, Hikvision's well-connected chairman, Chen Zongnian, is a member of the National People's Congress, and Pu Shiliang, a senior vice president who has overseen research and development, also led work at a laboratory run by the Ministry of Public Security. CCP and even PLA involvement or control seem likely given these facts.

The PLA connections to other companies are less obvious, but their nexus to national security can be inferred. For instance, there are several other technology companies on the list that are involved with AI and advanced computing. Two companies on the list are involved in construction, railways, and infrastructure development. And notably, the two largest communications corporations in China also make the list.

Conclusions:

In light of the lack of direct evidence linking several companies to the PLA, it is important to remember that PAI is simply one arrow in the quiver of national security professionals, and it is very likely DoD has access to a broader array of more sensitive information to supplement their findings. Indeed, this fact provides a valuable lesson to governments and corporations around the world: responsible stakeholders should understand that the scope of PLA and CCP involvement across the PRC economy is pervasive and assuming its presence is simply prudent. While the public record offers only a partial understanding of the economic and security realities at work in the PRC, the CCP's whole-of-nation approach to national security must be considered.

The international community must also grasp the dangers posed by PLA control of companies. Wherever the military or Communist Party controls or significantly influences operations, any product or technology can be repurposed toward military or security ends. Given the ease with which even seemingly civilian technologies can be converted to military application, companies should approach their PRC counterparts with caution and skepticism.

The DoD list of PLA-related companies demonstrates to the world that the Chinese military is involved across virtually every important sector of their economy, and the CCP intends to use every lever available to meet its national security goals. Governments and companies around the world must therefore be clear eyed in their dealings with Chinese companies and actively mitigate the risk of adding to the PLA's considerable military capabilities.

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Analysis is based on information derived from publicly or commercially available data sources. Babel Street expresses no representations, warranties, or assurances on the accuracy of the publicly available data but has used analytical rigor in generating its assessment.

Appendix: Detailed List of 20 PLA Controlled Companies

Aviation Industry Cooperation of China (AVIC): As of early December 2019, the Shenyang Institute announced they have begun developing a [new stealth fighter jet](#) alongside AVIC, a Chinese company with longstanding ties to Boeing Corporation. Additionally, Boeing has sold and delivered over 2,000 737 MAX jets to China and has deep relationships across the PRC aviation industry.

China Aerospace Science and Technology Corporation (CASC): CASC recently [launched three satellites](#) and two rockets within three days from the Jiuquan Satellite Launch Center (3-5 July, 2020). Of the three satellites, a Shiyao-6 series satellite was officially launched to study the environment of space and other “related technology experiments.” The wording on the description of the Shiyao-6 is strikingly similar to the description of the Yaogan satellites, a series of satellites assessed to serve a reconnaissance purpose. The Jiuquan Satellite Launch Center is ostensibly a military base attached to the People’s Liberation Army Air Force (PLAAF) and is where the world’s first [quantum-communications satellite](#) was launched from in 2016.

China Aerospace Science and Industry Corporation (CASIC): Known as a primary competitor to Elon Musk’s SpaceX. Liu Shiquan, Vice Director of CASIC, wrote in China’s People’s Daily newspaper: “Currently, China is developing its own reusable earth-to-orbit space vehicles that can take off and land horizontally.” CASIC is listed as [one of 130 Chinese companies](#) in the DOC “denied persons list” that lists international research institutes and government entities identified as having engaged in illegal exports or acting contrary to US national security and foreign policy interests.

China Electronics Technology Group Corporation (CETC): In conjunction with AVIC, CETC is involved in the development of [China’s new-generation fighter jet](#), scheduled to make its maiden flight in 2021. The announcement was made on WeChat in late June 2020 but was removed soon after. The new fighter jet is meant to compete with United States’ F-35.

China South Industries Group Corporation (CSGC): CSGC is managed by China’s Central Government and is claimed to be [“the backbone of the national defense technology industry.”](#) CSGC produces light weapons, mobile assault, advanced ammunition, information optoelectronics, anti-terrorism devices, and other equipment systems for all armed forces in China, including land, sea, air, rockets, public security, and armed police. The group also owns several vehicle manufacturing facilities and has partnerships with Ford, Mazda, and Peugeot Citroen.

China Shipbuilding Industry Corporation (CSIC) & China State Shipbuilding Corporation (CSSC): The Chinese shipbuilding industry now includes nearly [50 major shipyards](#), 12 of them belonging to the two major state-owned enterprises, China State Shipbuilding Corporation and China Shipbuilding Industry Corporation. CSIC builds some of the PLA Navy’s most advanced ships, including the first domestically produced aircraft carrier. Both CSSC and CSIC are deeply involved in the development of Unmanned Surface Vessels (USV) as seen

with the introduction of the [JARI combat drone boat](#) with capabilities including air defense, anti-ship and anti-submarine missions.

China North Industries Group Corporation (NORINCO) also known as China Ordnance Industries Group Corporation Limited: NORINCO—through its subsidiary Inner Mongolia First Machinery Co. Ltd. (FIRMACO)—is in the process of delivering [VT4 battle tanks](#) with explosive reactive armor (ERA) to the Pakistan Army Armored Corps. NORINCO recently unveiled a [“copycat” version](#) of the United States-produced Javelin ATGM. The capabilities are reportedly identical, having the same look, range and capability as the US-made weapon.

Huawei Technologies Co.: According to several sources, Huawei worked on [several research projects](#) alongside the People’s Liberation Army (PLA) within the fields of artificial intelligence (AI) and radio communications. As China’s largest technology company, [Huawei was banned](#) from all Australian infrastructure contracts, specifically regarding its introduction of 5G due to fears of “back doors” being left open for cyberattacks and espionage. Similar actions have been taken by the government of the United Kingdom and New Zealand, and the U.S. government has taken numerous steps to limit Huawei’s operations domestically and around the world.

Hangzhou Hikvision Digital Technology Co.: Hangzhou Hikvision makes video surveillance cameras and drones but [rejects any association](#) with China’s military – even in research and development. Hikvision was [placed on a trade blacklist](#) by the U.S. government in 2019 for its involvement in rights violations in China, including mass detention and surveillance. The company has come under severe criticism for providing its technology to the Chinese communist regime to repress Uyghur Muslims in Xinjiang.

Inspur Group: Inspur Group is a technology corporation focused on cloud computing, servers, and AI. Inspur Group uses Intel, a US Corporation’s processors to power its servers. In early July 2020, Intel Corp. was forced to temporarily [pause shipments](#) to China until they are able to comply with supply chain specifications set forth by the United States due to Inspur Group’s association with the Chinese Army.

Aero Engine Corporation of China (AECC): AECC was created mainly because of China’s desire to produce indigenous jet engine technology. The formation of the AECC manifested [through a merger](#) of several AVIC subsidiaries, Liyang Aero-Engine Corporation and Liming Aero-Engine Manufacturing Corporation. Through [cyber-espionage](#), AECC’s COMAC C919’s CJ-1000AX engine was born, according to CrowdStrike, a US cyber-security firm. After six years of non-stop hacking of foreign aviation companies, China’s AECC was able to replace a commercial engine previously manufactured by a foreign contractor – one of many instances of stolen technology and re-engineering by China.

China Railway Construction Corporation (CRCC): CRCC was the [second largest construction and engineering enterprise in the world](#) in 2014 and is based in Beijing, China. As of 8 May 2020, CRCC [completed the purchase](#) of Madrid-based construction company, Aldesa. The acquisition of Aldesa opens a book of business in Peru, Uruguay, Norway,

Poland, Slovakia, Denmark, Romania, and India. Apart from maintenance of railway equipment, over 85% of CRCC's revenue is generated through infrastructure and building projects.

China Railway Rolling Stock Corp. (CRRC): CRRC is the largest rolling stock corporation in the world. In addition to focusing on next-generation rail systems, CRCC looks to [expand its market presence](#) in wind power equipment, industrial robots, and polymer composite materials. U.S. Senators Mark R. Warner, Tim Kaine, Ben Cardin, and Chris Van Hollen sent a letter to the Greater Washington Metropolitan Area Transit Authority (WMATA), imploring WMATA to ban CRRC from providing equipment for passenger cars for a new metro line. The Senators believe CRRC-made wagons may include backdoors that allow the Chinese government the ability to spy on Washington residents and potentially provide an access point to sabotage transport lines.

Panda Electronics Group (PEG): Panda Electronics group researches, designs, develops, produces, and sells mobile phones, wireless network cards, power supplies, digital products, and radio products. The designation of Panda Electronics Group as being controlled by the Chinese military has drawn scrutiny of Sweden-based Ericsson, a partner of Panda Electronic Group in the [Australia 5G rollout](#), but Ericsson insists no PEG components will be involved in its Australian operations.

Dawning Information Industry Co.: DOC blacklisted Dawning a year ago, citing risks to American national security or foreign policy interests. [The action](#) bars the Dawning from accessing advanced U.S. computing technologies. Also known as Sugon, Dawning runs China's electric grid and [makes data centers](#) for Bytedance and TikTok.

China Mobile Communications Group: China Mobile is one of three state owned wireless carriers. Within the first quarter of 2020, China Mobile reportedly added over [29 million](#) 5G subscribers. The Federal Communications Commission (FCC) [denied](#) China Mobile International Inc.'s application for a license to provide telecommunications services in the United States.

China General Nuclear Power Corp. (CGN) / China National Nuclear Corp.: In 2016, the United States Justice Department charged CGN with [stealing](#) nuclear secrets from the United States. CGN currently has 59 new energy [projects](#) being constructed in China. Furthermore, through a partnership with China National Nuclear Corp., the China domestic [Hualong One](#) reactor was developed and will begin operation by the end of 2020.

China Telecommunications Corp.: Due to increased concerns over the potential for espionage, a recommendation was made to [revoke](#) China Telecommunications Corp's license to operate in the United States. According to FCC chairman Ajit Pai, China Telecommunications Corp. is determined to be controlled by the Chinese government.